FW: Re: New York City's DEIS for the Gowanus Canal area

Tsiamis, Christos <Tsiamis.Christos@epa.gov>

Tue 7/20/2021 4:02 PM

To: Carr, Brian <Carr.Brian@epa.gov>

fyi

From: Tsiamis, Christos
Sent: Tuesday, July 20, 2021 3:59 PM
To: Clarke, Kevin <kclarke@dep.nyc.gov>
Cc: Hess, Juliana/NYC <Juliana.Hess@jacobs.com>
Subject: Re: New York City's DEIS for the Gowanus Canal area

Kevin,

As you know, the proposed Gowanus rezoning has the potential to impact the Gowanus remedy as a result of changes in sanitary and stormwater loadings and discharges. EPA and its consultants have identified a number of inconsistencies in the City's DEIS on these issues. Along with the absence of certain supporting information, this prevents EPA from accurately determining the potential impacts to the Canal and the CSO remedy.

The City is doing the design and implementation of the CSO and Canal remedy pursuant to several EPA Superfund orders. **EPA requests that DEP provide responses to the following questions within 30 days of your receipt of this request in order for EPA to assess potential impacts to the Superfund remedy.**

1. Please provide a calculation of the anticipated additional sanitary flow, together with the detailed supporting data, assumptions and calculations, so that EPA may confirm the relevant calculations. DEP's response should also address the following issues:

Inconsistent total flows are indicated:

a. Page 11-4 states that the new development will be "generating additional sanitary flow of 1.29 mgd."
b. Table 11-8 on page 11-16 states that an additional 1.98 mgd of wastewater will be generated as result of the rezoning.
c. Appendix F, Table 3-4, states that the additional sanitary flow is 1.605 mgd.

Different residential wastewater generation rates are assumed, contrary to the CEQR manual and other standards:

a. Page 11-22 states: "Additional dry weather sanitary flow was added to the model based on the projected no action residential population in the rezoning area, assuming a per capita wastewater generation of 73 gpd." The same 73 gpd wastewater generation assumption is made for the with-action scenario on page 11-23.
b. The 73 gpd is less than the 100 gpd specified in the CEQR manual, the Ten States Standards, and other design guidelines, and it is inconsistent with other statements in Chapter 11 and Appendix F. Please explain the basis for using 73 gpd in this calculation.

c. Table 3-4, which is calculated based on a different methodology - transit analysis zone (TAZ), effectively utilizes a figure of 83.0 gpd when the calculations are normalized as unit sanitary flow, for the rezoning, but higher and lower unit amounts for the baseline and without rezoning scenarios. (See yellow highlighted column, below, added to Table 3-4).

Scenario	Population in Rezoned Area	Sanitary Flow in Rezoned Area (MGD)	**Sanitary Flow (gpcd)**
Baseline	6,541	0.640	97.8
2035, Without Rezoning	8,746	0.960	109.8
2035, With Rezoning	27,035	2.245	83.0

2. It does not appear that the results shown in Chapter 11 for sanitary flows and stormwater runoff calculations were used in the modeling results shown in Appendix F. Please state which, if any, of the assumptions used in the modeling in Appendix F differ from the Chapter 11 calculations.

3. Table 11-4 on page 11-9 shows sanitary flows for 4 rainfall volumes for each of 5 "subcatchment areas" in the Red Hook WRRF service area and 1 Owls Head WRRF subcatchment area for the Existing Condition. The "Sanitary Volume to CSS (MG)" seems to change from one size event to another. The same is true in Tables 11-7 and 11-11 for the other scenarios. Please provide an explanation for how this is possible, together with the supporting data assumptions and calculations. It also seems that there are no sanitary flows from several of these catchment areas. Please provide an explanation for how this is possible, together with the supporting data assumptions and calculations.

4. The DEIS conclusions and the typical year CSO discharge volumes at specific outfalls shown in the Table 11-16 below for the "No Action Condition" are not consistent with NYC's September 10, 2018 Gowanus Canal Meeting on NYC Tunnel Alternative presentation to EPA of a typical year discharges for the "Tanks Only" scenario, also shown below. Appendix F does not appear to be consistent with the modeling and engineering work presented to EPA at past meetings. For the past several years, NYC has revised its models to represent the two tanks, green infrastructure and the HLSS projects. However, it appears that new modeling has been performed to represent these conditions, and not using the methods NYC has used previously. Please confirm if that is the case and provide a detailed explanation of the basis for any such changes.

DEIS:

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"The analysis found that, under the With Action condition, with the additional development facilitated by the Proposed Actions, CSO volumes would decrease as compared with the No Action condition despite the increase to sanitary flows from new development." - Page 11-4

"The Unified Stormwater Rule benefits in the rezoning area more than offset the increase in sanitary flows and, even with the increased population and sanitary flow, would result in approximately 5 million gallons per year of CSO reduction to the Gowanus Canal." - Page 11-4

"The assessment found that the estimated pollutant loads to Gowanus Canal decreased, due to the decrease in CSO volumes as described above." - Page 11-4

Table 11-16
Detailed Analysis—CSO Volume

Outfall #	No Action Condition CSO Volume—Tank (MG)	With Action Condition CSO Volume—Tank (MG)	With Action Increment (MG)
OH-005	0.9	0.9	-
OH-006	18.4	18.3	-0.1
OH-007	10.2	9.9	-0.3
RH-030	17.1	16.2	-0.9
RH-031	19.4	18.2	-1.2
RH-033	0	0	-
RH-034	29.9	28.5	-1.4
RH-035	8.1	7.0	-1.1
RH-036	0.4	0.1	-0.3
RH-037	0.04	0.02	-0.02
RH-038	1.0	0.9	-0.1
Total	105.44	100.02	-5.42

Source: DEP, *Gowanus Canal CSO and Surcharging Assessment Technical Memorandum* (January 2021)

September 10, 2018 Gowanus Canal Meeting on NYC Tunnel Alternative:

Summary of Typical Year (2008) Performance				
	Baseline	Option 1: Tanks Only	Option 3a: Phase 1 and OH Flooding Benefits	Option 4b: All Phases
Total Storage Volume (MG)		12	17.5	37.3
CSO Performance				
a. % CSO Captured at RH-034 and OH-007				
RH-034		75.4%	83.0%	93.4%
OH-007		84.6%	100.0%	100.0%
b. Annual Average Overflows (MG)				
RH-034	123.3	30.9	21.3	8.2
OH-007	63.2	9.7	0	0.02
RH-031	16.9	16.9	16.9	0
RH-030	16.4	16.4	16.4	0
RH-035	5.4	5.4	5.4	0
Other Overflows	19.3	17.6	17.6	4.8
c. Number of Activations				
RH-034		6	4	2
OH-007		4	0	1
Entire Canal Percent CSO Volume Reduction		49%	56%	78%

5. In addition, on the west side of the Canal, the no-action discharge volumes shown in Table 11-16 for RH-035 where substantial rezoning will occur are approximately 3 MG higher than NYC's September 2018 calculations above. Rather than reducing discharges at RH-035 by 1.1 MG as Table 11-16 implies, these calculations show a 2 MG increase in discharges. Please provide the detailed supporting basis for the calculations in Table 11-16 for RH-035.

6. Tables 11-13 through 11-17 cite the source of the information "DEP, Gowanus Canal CSO and Surcharging Assessment Technical Memorandum (January 2021)." Appendix F is titled "Gowanus Canal CSO and Flooding Assessment Technical Memorandum (January 2021)". Please confirm if this is the same document. If not, provide the additional document.

7. The CSO discharge volumes shown in Table 4-2 of Appendix F are not consistent with Chapter 11 of the EIS. Please provide a detailed explanation for the inconsistencies, or a corrected table.

8. There appears to be no consistency between how sanitary flow and stormwater runoff calculations shown in Chapter 11 and Appendix F were performed for the with and without the new Unified Stormwater Rule scenarios. Please provide the supporting data and assumptions for the modeling work shown in Appendix F, along with clarifications on the reason for the differences between Chapter 11 and Appendix F.

9. Please provide EPA with a map that identifies all the lots in the Gowanus Canal CSO drainage areas that the 2021 Unified Stormwater Rule would apply to, and provide a calculation showing how the application of the Rule to those properties would change the associated CSO outfall's discharge volume.

10. Please state the percent of the combined sewer system capacity utilized for sanitary loads during dry weather conditions under the current and anticipated scenarios, the volume of any change for in-line CSO storage capacity, the volume of any associated CSO discharge changes, and the supporting data and assumptions.

Thank you for your cooperation.

Sincerely,

Christos Tsiamis
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New York Remediation Branch
USEPA, Region 2
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